

Lack  
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**Amendments to the Claims:**

Please cancel claims 1-17 without prejudice or disclaimer of the subject matter contained therein.

18. (New) A spore genetically modified with genetic code comprising at least one  
2 genetic construct encoding an antigen and a spore coat protein as a chimeric gene, said  
genetically modified spore having said antigen expressed as a fusion protein with said spore coat  
4 protein for use in oral or intranasal or rectal administration for therapeutic treatment.
19. (New) A spore as claimed in claim 18, wherein the spore is of *Bacillus* species.
20. (New) A spore as claimed in claim 18, wherein the genetic construct comprises at  
2 least part of a spore coat protein gene and at least part of an antigen gene, in the form of a  
chimeric gene.
21. (New) A spore as claimed in claim 18, wherein the antigen gene is located at the  
2 3' end of the spore coat protein gene.
22. (New) A spore as claimed in claim 18, wherein the genetic construct comprises a  
2 spore coat promoter at the 5' end of the chimeric gene.
23. (New) A spore as claimed in claim 22, wherein the antigen is at least one of  
2 tetanus toxin fragment C or labile toxin B subunit.

[1-17] \*

24. (New) A spore as claimed in claim 18, wherein the spore coat protein is selected  
2 from the group consisting of *cotA*, *cotB*, *cotC*, *cotD*, *cotE*, *cotF*, *cotG*, *cotH*, *cotJA*, *cotJC*, *cotM*,  
*cotSA*, *cotS*, *cotT*, *cotV*, *cotW*, *cotX*, *cotY* and *cotZ*.
25. (New) A spore as claimed in claim 24, wherein the spore is heat inactivated so  
2 that in use it does not germinate into a vegetative cell.
26. (New) A spore as defined in claim 18 for use in the treatment of a medical  
2 condition.
27. (New) A composition comprising at least two different spores as defined  
2 in claim 18, wherein said at least two different spores express at least two different  
antigens.
28. (New) A composition as defined in claim 27, wherein the composition  
2 further comprises a pharmaceutically acceptable excipient or carrier.
29. (New) A composition comprising a spore as defined in claim 18 in  
2 association with a pharmaceutically acceptable excipient or carrier for use in oral or  
intranasal or rectal administration for therapeutic treatment.

30. (New) A composition comprising a spore as defined in claim 26 in  
2 association with a pharmaceutically acceptable excipient or carrier for use in oral or  
intranasal or rectal administration for therapeutic treatment.

31. (New) A composition as defined in claims 27, 28 or 29, for use in  
2 treatment of a medical condition, preferably the medical condition is inflammation,  
pain, a hormonal imbalance and/or an intestinal disorder.

32. (New) Use of a spore as defined in claim 18 in the manufacture of a  
2 medicament for use in the treatment of a medical condition, preferably the medical  
condition is inflammation, pain, a hormonal imbalance and/or an intestinal disorder.

33. (New) Use of a spore as defined in claim 26 in the manufacture of a  
2 medicament for use in the treatment of a medical condition, preferably the medical  
condition is inflammation, pain, a hormonal imbalance and/or an intestinal disorder.

34. (New) A method of medical treatment, which method comprises the steps  
2 of

a) administering a spore as defined in claim 18 to a human or animal in need  
4 of medical treatment by an oral, intra-nasal or rectal route;

b) said genetically modified spore eliciting an immune response for use in  
6 the prevention of a disease.

35. (New) A method of medical treatment, which method comprises the steps  
2 of  
a) administering a spore as defined in claim 26 to a human or animal in need  
4 of medical treatment by an oral, intra-nasal or rectal route;  
b) said genetically modified spore eliciting an immune response for use in  
6 the prevention of a disease.

36. (New) A method of producing a genetically modified spore, which method  
2 comprises the steps;  
producing genetic code comprising at least one genetic construct encoding an antigen and  
4 a spore coat protein as a chimeric gene;  
using said at least one genetic construct to transform a vegetative mother cell;  
6 inducing said transformed mother cell to sporulate; and  
isolating the resulting genetically modified spores.